

Title (en)  
PLUG-IN HYBRID VEHICLE WITH FAST ENERGY STORAGE

Title (de)  
EINSTECK-HYBRIDFAHRZEUG MIT SCHNELLER ENERGIESPEICHERUNG

Title (fr)  
VEHICULE HYBRIDE ENFICHABLE A STOCKAGE D'ENERGIE RAPIDE

Publication  
**EP 1883552 B1 20120620 (EN)**

Application  
**EP 06759054 A 20060504**

Priority

- US 2006017180 W 20060504
- US 59478405 P 20050505
- US 59536705 P 20050627
- US 59644305 P 20050923

Abstract (en)  
[origin: US2006250902A1] This invention relates to plug-in hybrid propulsion systems where the energy storage element of the hybrid drive train may be charged with externally supplied electricity as well as energy from the engine or regenerative braking. The invention is a plug-in hybrid system with a fast energy storage and delivery system. In a preferred embodiment the invention comprises a fuel powered engine, a battery, a fast energy storage system, power converters, controllers, drive motors, an electrical distribution system, and a drive train. Additionally, the invention relates to plug-in hybrids that provide services to the electrical utility when the vehicle is connected to the utility grid.

IPC 8 full level  
**B60K 6/10** (2006.01); **B60L 9/00** (2006.01)

CPC (source: EP KR US)  
**B60K 6/20** (2013.01 - KR); **B60K 6/28** (2013.01 - KR); **B60K 6/30** (2013.01 - EP US); **B60K 6/46** (2013.01 - EP US);  
**B60K 6/48** (2013.01 - EP US); **B60K 6/52** (2013.01 - EP US); **B60K 6/54** (2013.01 - EP US); **B60L 15/007** (2013.01 - EP US);  
**B60L 50/15** (2019.01 - EP US); **B60L 50/16** (2019.01 - EP US); **B60L 50/61** (2019.01 - EP US); **B60L 50/62** (2019.01 - EP US);  
**B60L 53/14** (2019.01 - EP US); **B60L 53/30** (2019.01 - EP US); **B60L 55/00** (2019.01 - EP US); **B60L 58/20** (2019.01 - EP US);  
**H04B 1/20** (2013.01 - KR); **B60K 1/02** (2013.01 - EP US); **B60L 2260/28** (2013.01 - EP US); **Y02E 60/00** (2013.01 - EP US);  
**Y02T 10/62** (2013.01 - EP US); **Y02T 10/64** (2013.01 - EP US); **Y02T 10/70** (2013.01 - EP US); **Y02T 10/7072** (2013.01 - EP US);  
**Y02T 90/12** (2013.01 - EP US); **Y02T 90/14** (2013.01 - EP US); **Y02T 90/16** (2013.01 - US); **Y04S 10/126** (2013.01 - EP US)

Cited by  
AU2021200592B2; US9669724B2; US9873318B2; WO2016191733A1; EP2490910A1

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)  
**US 2006250902 A1 20061109**; CA 2647638 A1 20061116; CN 101218119 A 20080709; CN 101218119 B 20110112; EP 1883552 A2 20080206;  
EP 1883552 A4 20110427; EP 1883552 B1 20120620; HK 1112604 A1 20080912; HK 1123017 A1 20090605; KR 20080003905 A 20080108;  
WO 2006121761 A2 20061116; WO 2006121761 A3 20071129

DOCDB simple family (application)  
**US 41762806 A 20060504**; CA 2647638 A 20060504; CN 200680024572 A 20060504; EP 06759054 A 20060504; HK 08107455 A 20080707;  
HK 09100195 A 20090108; KR 20077026937 A 20071120; US 2006017180 W 20060504